

(FILE 'HOME' ENTERED AT 17:13:39 ON 16 JAN 2002)

FILE 'MEDLINE, AGRICOLA, CAPLUS, BIOSIS, EMBASE, WPIDS, USPATFULL'  
ENTERED AT 17:13:51 ON 16 JAN 2002

L1 24528 S (CYS? (W) (PROTEASE OR PROTEINASE)) OR CP1  
L2 1883 S L1 AND (BACILLUS OR (GRAM (W) POSITIVE OR BACTERIA#  
L3 4300 S (CYS? (W) (PROTEASE OR PROTEINASE) (W) 1) OR CP1  
L4 181 S L3 AND (BACILLUS OR (GRAM (W) POSITIVE OR BACTERIA#)  
L5 112 S L4 NOT PY>1995  
L6 93 DUP REM L5 (19 DUPLICATES REMOVED)  
L7 32 S L6 AND (MUTAT? OR DELET?  
L8 135 S CYS? (W) (PROTEASE OR PROTEINASE) (W) 1) OR CP1 AND PROTEA  
L9 38 S L8 AND (BACILLUS OR (GRAM (W) POSITIVE OR BACTERIA#)  
L10 37 DUP REM L9 (1 DUPLICATE REMOVED)

=>

ED DATA FROM 37 ANSWERS CONTINUE? Y/ N: Y

L10 ANSWER 1 OF 37 USPATFULL

ACCESSION NUMBER: 2001:231174 USPATFULL  
 TITLE: **Protease** homologs  
 INVENTOR(S): Robison, Keith E., Wilmington, MA, United States  
 PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6331427	B1	20011218
APPLICATION INFO:	US 1999-280116		19990326 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Murthy, Ponnathapu Achuta		
ASSISTANT EXAMINER:	Moore, William W.		
LEGAL REPRESENTATIVE:	Alston & Bird LLP		
NUMBER OF CLAIMS:	7		
EXEMPLARY CLAIM:	1		
LINE COUNT	3346		

AB The invention relates to polynucleotides encoding newly identified **protease** homologs belonging to the superfamily of G-protein-coupled proteases. The invention also relates to the proteases. The invention further relates to methods using the **protease** polypeptides and polynucleotides as a target for diagnosis and treatment in **protease**-mediated disorders. The invention further relates to drug-screening methods using the **protease** polypeptides and polynucleotides to identify agonists and antagonists for diagnosis and treatment. The invention further encompasses agonists and antagonists based on the **protease** polypeptides and polynucleotides. The invention further relates to procedures for producing the **protease** polypeptides and polynucleotides.

L10 ANSWER 2 OF 37 USPATFULL

ACCESSION NUMBER: 2001:231163 USPATFULL  
 TITLE: Process of expressing and isolating recombinant proteins and recombinant protein products from plants, plant derived tissues or cultured plant cells  
 INVENTOR(S): Shani, Ziv, Rehovot, Israel  
 Shoheyov, Oded, Karme Yosef, Israel  
 PATENT ASSIGNEE(S): CBD Technologies Ltd., Rehovot, Israel (non-U.S. corporation)  
 Yissum Research and Development Company of the Hebrew University of Jerusalem, Jerusalem, Israel (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6331416	B1	20011213
APPLICATION INFO:	US 1999-329234		19990610 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Campbell, Bruce R.		
ASSISTANT EXAMINER:	Wolfsch, Joseph T.		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT	1884		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process of expressing a recombinant protein in a plant and of isolating the recombinant protein from the plant, the process is effected by (a) providing a plant, a plant derived tissue or cultured plant cells expressing a fusion protein including the recombinant protein and a cellulose binding peptide being fused thereto, the fusion protein being compartmentalized within cells of the plant, plant derived tissue or cultured plant cells, so as to be sequestered from cell walls of the cells of the plant, plant derived tissue or cultured plant cells; (b) homogenizing the plant, plant derived tissue or cultured plant cells, so as to bring into contact the fusion protein with a cellulosic matter of the plant, plant derived tissue or cultured plant cells, to thereby effect affinity binding of the fusion protein via the cellulose binding peptide to the cellulosic matter, thereby obtaining a fusion protein cellulosic matter complex; and (c) isolating the fusion protein cellulosic matter complex.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 3 OF 37 USPATFULL

ACCESSION NUMBER: 2001:136774 USPATFULL

TITLE: Cloning and expression of a DNA sequence encoding a 41 kDa cryptosporidium parvum oocyst wall protein

INVENTOR(S): Jenkins, Mark C., Davidsonville, MD, United States  
Fayer, Ron, Columbia, MD, United States  
Trout, James, Columbia, MD, United States

PATENT ASSIGNEE(S): The United States of America as represented by the Secretary of Agriculture, Washington, DC, United States  
(U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6077773	B1	20010801
APPLICATION INFO.:	US 1999 451117		19991130 9
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Stucker, Jeffrey		
ASSISTANT EXAMINER:	Winkler, Ulrike		
LEGAL REPRESENTATIVE:	Silverstein, M. Howard, Fado, John D., Rabin, Evelyn M.		
NUMBER OF CLAIMS:	16		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	11 Drawing Figure(s); 10 Drawing Page s.		
LINE COUNT:	1911		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Recombinant proteins have been developed for the immunization of animals against cryptosporidiosis. The proteins are effective for the immunization of a variety of animals against *Cryptosporidium parvum*, particularly for the production of hyperimmune colostrum that may be used to confer passive immunity against the parasite. Isolated DNA sequences which encode these proteins have also been developed. The DNA sequences may be inserted into recombinant DNA molecules such as cloning vectors or expression vectors for the transformation of cells and the production of the proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

#### L1) ANSWER 4 OF 37 USPATFULL

ACCESSION NUMBER: 2001:121243 USPATFULL

TITLE: Methods for stool sample preparation

INVENTOR(S): Shuber, Anthony P., Milford, MA, United States  
Lapides, Stanley N., Bedford, NH, United States  
Radcliffe, Gail E., Worcester, MA, United States

PATENT ASSIGNEE(S): Exact Science Corporation, Maynard, MA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6268136	B1	20010731
APPLICATION INFO.:	US 1998 198033		19981123 (9)
RELATED APPLN. INFO.:	Continuation in-part of Ser. No. US 1997 376638, filed on 16 Jun 1997, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Horlick, Kenneth R.		
LEGAL REPRESENTATIVE:	Testa, Hurwitz & Thibault LLP		
NUMBER OF CLAIMS:	48		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page s		
LINE COUNT:	918		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides methods for the preparation of stool samples to increase the yield of relevant DNA, and further provides methods for isolating and analyzing target DNA for characteristics indicative of colorectal cancer. Methods for screening patients for the presence of cancerous or pre-cancerous colorectal lesions are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

#### L1) ANSWER 5 OF 37 USPATFULL

ACCESSION NUMBER: 2001:67794 USPATFULL

TITLE: Human respiratory syncytial virus peptides with antifusogenic and antiviral activities

INVENTOR(S): Barney, Shawn O'Lin, Cary, NC, United States  
Lambert, Dennis Michael, Cary, NC, United States  
Petteway, Stephen Robert, Cary, NC, United States

PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6228983	B1	20010508
APPLICATION INFO.:	US 1995 485264		19950607 8

RELATED APPLN. INFO.: Division of Ser. No. US 1996 470a96, filed on 6 Jun 1996 Continuation in part of Ser. No. US 1994 360100, filed on 20 Dec 1994 Continuation in part of Ser. No. US 1994 255208, filed on 7 Jun 1994 Continuation in part of Ser. No. US 1993 73026, filed on 7 Jun 1993, now patented, Pat. No. US 5464933

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted

PRIMARY EXAMINER: Scheiner, Laurie

ASSISTANT EXAMINER: Parkin, Jeffrey S.

LEGAL REPRESENTATIVE: Pennie & Edmonds LLP

NUMBER OF CLAIMS: 61

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 64 Drawing Figure(s); 33 Drawing Page(s)

LINE COUNT: 32166

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to peptides which exhibit antifusogenic and antiviral activities. The peptides of the invention consist of a 16 to 39 amino acid region of a human respiratory syncytial virus protein. These regions were identified through computer algorithms capable of recognizing the ALLMPT16, 117x178x4, or PLZ1P amino acid motifs. These motifs are associated with the antifusogenic and antiviral activities of the claimed peptides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 6 OF 37 USPATFULL

ACCESSION NUMBER: 2001:59662 USPATFULL

TITLE: Enterococcal aminoacyl-tRNA synthetase proteins, nucleic acids and strains comprising same

INVENTOR(S): Rao, Jianshi, North Andover, MA, United States  
Sassanfar, Mandana, Dedham, MA, United States  
Gallant, Paul L., Dedham, MA, United States  
Shen, Xiaoyu, Boston, MA, United States  
Avruch, Anthony S., Watertown, MA, United States  
Yu, Russell V., Munster, IN, United States  
Nair, Shamila, Paris, France(4)

PATENT ASSIGNEE(S): DuPont Pharmaceuticals, Inc., Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6221640	B1	20010424
APPLICATION INFO.:	US 1997-851910		19970514 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT	Granted		
PRIMARY EXAMINER:	Hobbs, Lisa J.		
LEGAL REPRESENTATIVE:	Hamilton, Brook, Smith & Reynolds, P.C.		
NUMBER OF CLAIMS:	110		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	9 Drawing Figure(s); 9 Drawing Page(s)		
LINE COUNT:	4461		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Recombinant nucleic acids which encode aminoacyl tRNA synthetases of enterococcal origin or portions of such enzymes, have been isolated. These nucleic acids can be used to make expression constructs and transformed host cells for the production of enterococcal aminoacyl tRNA synthetases. They can also be used in the further isolation of nucleic acids related by DNA sequence similarities, which also encode enterococcal aminoacyl-tRNA synthetases, or portions thereof. A further embodiment of the invention is antisense nucleic acid which can hybridize to the nucleic acid which encodes the aminoacyl-tRNA synthetase of enterococci. The invention also relates to tRNA synthetases such as isolated and/or recombinant enterococcal aminoacyl tRNA synthetases. Antibodies which bind to these enzymes can be made and can be used in the purification and study of the enzymes. Tester strains, which are cells engineered to rely on the function of the tRNA synthetase encoded by an introduced cloned gene, can be used to test the effectiveness of drug candidates in the inhibition of the essential tRNA synthetase enzyme encoded by an introduced cloned gene.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 7 OF 37 USPATFULL

ACCESSION NUMBER: 2001:36486 USPATFULL

TITLE: Antiflatulent composition

INVENTOR(S): Day, Charles E., 1434 Sunbeam Rd., Leitchfield, KY, United States 42754

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6200605	B1	20010313

APPLICATION INFO.: US 1998 182695 19981029 9

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997 64407	19971030 60
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Page, Thurman K.	
ASSISTANT EXAMINER:	Ware, Todd D.	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
LINE COUNT:	301	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An antifatulent composition is disclosed which comprises a polysaccharide and a preservative. The composition is useful to control gas formation at the site of generation of flatulence.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 8 OF 37 USPATFULL

ACCESSION NUMBER: 20017867 USPATFULL  
 TITLE: Purification of a polypeptide compound having a polysaccharide binding domain by affinity phase separation  
 INVENTOR(S): Haynes, Charles A., Vancouver, Canada  
 Tomme, Peter, Vancouver, Canada  
 Kilburn, Douglas G., Vancouver, Canada  
 PATENT ASSIGNEE(S): University of British Columbia, Vancouver, Canada  
 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6174700	B1	20010116
APPLICATION INFO.:	US 1995 565860		19950724 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994 249037, filed on 24 May 1994; Continuation of Ser. No. US 1992 865095, filed on 8 Apr 1992, now patented, Pat. No. US 5340731; Continuation-in-part of Ser. No. US 1990-603937, filed on 28 Oct 1990, now patented, Pat. No. US 5202247; Division of Ser. No. US 1989-216794, filed on 8 Jul 1989, now patented, Pat. No. US 5137319		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Naff, David M.		
LEGAL REPRESENTATIVE:	Rae-Venter, BarbaraRae Venter Law Group P.C.		
NUMBER OF CLAIMS:	34		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	25 Drawing Figure(s); 13 Drawing Page(s)		
LINE COUNT:	2016		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A compound having a polysaccharide binding domain such as contained by a cellulose and essentially lacking in polysaccharidase activity is purified from other ingredients in a mixture using an affinity partition system. A mixture containing the compound is contacted with a system containing as a first phase an aqueous solution of oligosaccharide polymer such as cellulose and as a second phase a solution of a polymer such as a polystyrene-glycol, polyacrylate-glycol copolymer. The compound partitions into the first phase and binds to the oligosaccharide polymer, preferably with a  $K_{sub.a}$  of  $10^{sup.3}$  to  $10^{sup.7}$ , to form a complex. The complex is collected, and the compound is dissociated from the oligosaccharide polymer. The compound may be formed of a non peptide chemical moiety or a peptide moiety linked to a polypeptide having the polysaccharide binding domain. The compound may also be a fusion polypeptide containing the polysaccharide binding domain linked through a **protease** recognition sequence to a macromolecule such as an enzyme, a hormone or an antibody. The macromolecule can be removed by using a **protease** to cleave the recognition sequence. Another partition system contains the oligosaccharide polymer and a phase separation inducing agent such as a sulfate or citrate salt that induces separation to produce different phases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 9 OF 37 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 2001357710 EMBASE  
 TITLE: Functional expression of the catalytic domains of two cysteine proteinases from Trypanosoma congolense.  
 AUTHOR: Boulange A.; Serveau C.; Brillard M.; Minet C.; Gauthier F.; Diallo A.; Lalmanach G.; Authie E.  
 CORPORATE SOURCE: E. Authie, Lab. Rech. Coord. les Trypanosomoses, IRD CIRAD, Campus international de Baillarguet, 34398 Montpellier Cedex 5, France. e.authie@cgiar.org

SOURCE: International Journal for Parasitology, 2001 31 13  
 1435-1440  
 Refs: 19  
 ISSN: 0020-7519 CODEN: IJPHYB  
 PUBLISHER IDENT.: S 0020-7519(01)00267-3  
 COUNTRY: United Kingdom  
 DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 004 Microbiology  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

AB The catalytic domains of two closely related cysteine proteinases CP1 and CP2 from *Trypanosoma congolense*, referred to as C1 and C2, were expressed as proforms in *Escherichia coli* C1 and in the baculovirus system C1 and C2. While the bacterial expression system did not allow recovery of active C1, the baculovirus system led to secretion of inactive zymogens which could be processed at acidic pH into mature enzymes. Active C1 and C2 were purified from serum free culture supernatants by anion-exchange chromatography and characterised. Their kinetic parameters and pH activity profiles confirmed the relatedness between C2 and native CP1 (congopain). These properties also underline major functional differences between C1 and C2, that appear to relate to discrete but essential sequence differences. It is likely that these two enzymes perform distinct roles in vivo, in the parasite and/or in the host-parasite relationships. .COPYRIGHT. 2001 Australian Society for Parasitology Inc. Published by Elsevier Science Ltd. All rights reserved.

L10 ANSWER 10 OF 37 USPATFULL

ACCESSION NUMBER: 2000:193633 USPATFULL  
 TITLE: Cloning and sequencing of allergens of dermatophagoides (house dust mite)  
 INVENTOR(S): Palmer, Wayne Robert, Nedlands, Australia  
 Stewart, Geoffrey A., Leeming, Australia  
 Turner, Kevin J., Claremont, Australia  
 Simpson, Richard J., Richmond, Australia  
 PATENT ASSIGNEE(S): Immunologic Pharmaceutical Corporation, Waltham, MA,  
 United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6147261		20011114
APPLICATION INFO:	US 1995-472123		19950607 (B)
RELATED APPLN. INFO:	Division of Ser. No. US 1994-301137, filed on 6 Sep 1994 which is a continuation of Ser. No. US 1993 117332, filed on 16 Aug 1993, now abandoned which is a continuation of Ser. No. US 1990-530655, filed on 11 Sep 1990, now abandoned which is a continuation-in-part of Ser. No. US 1990 453642, filed on 13 Feb 1990, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	AU 1987 12503	19870613
	WO 1988 AU195	19880617
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Scheiner, Laurie	
LEGAL REPRESENTATIVE:	Mabive & Cockfield, LLP, Remillard, Esquire, Jane E. Mandragoutas, Esq., Amy E.	
NUMBER OF CLAIMS:	11	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	11 Drawing Figure(s); 12 Drawing Page(s)	
LINE COUNT:	1162	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Isolated DNA encoding allergens of Dermatophagoides house dust mites particularly of the species Dermatophagoides farinae and Dermatophagoides pteronyssinus, which are protein allergens or peptides which include at least one epitope of the protein allergen. In particular, DNA encoding two major D. farinae allergens, Der f I and Der f II and DNA encoding a D. pteronyssinus allergen, Der p I. In addition, the proteins or peptides encoded by the isolated DNA, their use as diagnostic and therapeutic reagents and methods of diagnosing and treating sensitivity to house dust mite allergens.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 11 OF 37 USPATFULL

ACCESSION NUMBER: 2000:47081 USPATFULL  
 TITLE: Human cDNAs and proteins encoded thereby  
 INVENTOR(S): Kato, Seishi, Sagamihara, Japan  
 Oh, Suwan, Taejeon, Korea, Republic of  
 Sekine, Shingo, Sagamihara, Japan  
 Kim, Namsoon, Sagamihara, Japan

Kato, Takae, Tokyo, Japan  
 Iwahori, Akiyo, Tokyo, Japan  
 PATENT ASSIGNEE(S): Sagami Chemical Research Center, Tokyo, Japan (non U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6051424		20000418
APPLICATION INFO.:	US 1996-390207		19960216 8
RELATED APPLN. INFO.:	Continuation in-part of Ser. No. US 379441		

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1992-108077	19920814
	JP 1992-127619	19921113
	JP 1993-61431	19930216
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Priebe, Scott D.	
LEGAL REPRESENTATIVE:	Foley & Lardner	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1,2	
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)	
LINE COUNT:	5918	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Isolated cDNAs derived from mRNAs expressed in human cells are provided, as are DNAs and RNAs comprising their nucleotide sequences, and vectors for expressing the cDNAs. The cDNAs encode proteins which have functions similar to known proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 12 OF 37 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1  
 ACCESSION NUMBER: 1999:77703 CAPLUS  
 DOCUMENT NUMBER: 130:159350  
 TITLE: Identification of genes for novel cysteine proteinases in the genome of *Bacillus subtilis*  
 INVENTOR(S): Estell, David A.  
 PATENT ASSIGNEE(S): Genencor International, Inc., USA; Genencor International B.V.  
 SOURCE: PCT Int. Appl., 31 pp.  
 CODEN PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9914016	A2	19990428	WO 1998/US14529	19980714
WO 9914016	A3	19990415		
W: AL, AM, AT, AU, AD, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MH, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, ML, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SE, UG, ZW, AT, BE, CH, CY, CZ, DE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG AU 984017 A1 19991210 AU 1998 84017 19980714 EP 998571 A2 20000510 EP 1998-934513 19980714 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI JP 2011510150 T2 20110731 JP 1001 503222 19980714 PRIORITY APPLN. INFO.: EP 1997 315227 A 19970715 WO 1998 US14529 X 19980714				

AB Three novel cysteine proteinases: CP1, CP2, and CP3, are identified by examn. of the genome of *Bacillus subtilis* for open reading frames carrying sequences typical of cysteine proteinases. The enzymes may be useful as catalysts in industrial chem., e.g. in cleaning compns. The enzymes may also play a role in the degrdn. of foreign proteins manufd. by expression of the cloned gene in *B. subtilis* and inactivation of the genes may be useful in increasing yields of foreign proteins.

L10 ANSWER 13 OF 37 USPATFULL  
 ACCESSION NUMBER: 1999:40159 USPATFULL  
 TITLE: Method, compositions and kit for detection and identification of microorganisms  
 INVENTOR(S): Lacroix, Jean-Michel, Etobicoke, Canada  
 Leushner, James, North York, Canada  
 Hui, May, Toronto, Canada

Dunn, James M., Scarborough, Canada  
 Larson, Marina T., Yorktown, NY, United States  
 PATENT ASSIGNEE(S): Visible Genetics, Inc., Toronto, Canada (non-U.S.  
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5888736		19990330
APPLICATION INFO:	US 1997-807133		19970227 (8)
RELATED APPLN. INFO:	Continuation-in-part of Ser. No. US 1996-684498, filed on 19 Jul 1996, now patented, Pat. No. US 5830657 Ser. No. Ser. No. US 1996-640672, filed on 1 May 1996, now patented, Pat. No. US 5789168 And Ser. No. US 1995-577853, filed on 22 Dec 1995, now patented, Pat. No. US 5834189		
DOCUMENT TYPE:	Utility		
FILE SEGMENT	Granted		
PRIMARY EXAMINER:	Elliot, George C.		
ASSISTANT EXAMINER:	Larson, Thomas G		
LEGAL REPRESENTATIVE:	Oppedahl & Larson LLP		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
LINE COUNT	2556		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Evaluation of a sample for the presence and qualitative nature of a microorganism can be performed in a single vessel by combining a natural abundance DNA sample with a sequencing mixture containing a primer pair, a thermally stable polymerase such as ThermoSequenase.TM. which incorporates dideoxynucleotides into an extending nucleic acid polymer at a rate which is no less than about 0.4 times the rate of incorporation of deoxynucleotides, nucleotide triphosphate feedstocks, and a chain terminating nucleotide triphosphate. The mixture is processed through multiple thermal cycles for annealing, extension and denaturation to produce a product mixture which is analyzed by electrophoresis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 14 OF 37 USPATFULL

ACCESSION NUMBER: 1999:16128 USPATFULL  
 TITLE: Maize chlorotic dwarf virus genome and uses therefor  
 INVENTOR(S): Law, Marcus, Chapel Hill, NC, United States  
 Reddick, Bradford B., Knoxville, TN, United States  
 Habera, Ledare, Knoxville, TN, United States  
 PATENT ASSIGNEE(S): Novartis Finance Corporation, New York, NY, United  
 States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION	US 5866780		19990202
APPLICATION INFO:	US 1995-416603		19950404 (8)
DOCUMENT TYPE	Utility		
FILE SEGMENT	Granted		
PRIMARY EXAMINER	McElwain, Elizabeth F.		
LEGAL REPRESENTATIVE:	Saliwanchik, Lloyd & Saliwanchik		
NUMBER OF CLAIMS	10		
EXEMPLARY CLAIM:	1,5,10		
LINE COUNT	2445		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides the nucleotide structure and organization of a novel maize chlorotic dwarf virus genome designated MCDV-Tn. Methods for using the complete or partial MCDV-Tn genomic sequence as a probe for diagnostic and other purposes are taught. Methods for inhibiting MCDV-Tn infection are also taught. These methods include the generation of transformed plants capable of expressing MCDV-Tn proteins, either in modified or unmodified form, and antisense sequences targeting MCDV-Tn genomic RNA. Recombinant production of MCDV-Tn proteins in appropriate host cells is also taught.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 15 OF 37 USPATFULL

ACCESSION NUMBER: 1998:157587 USPATFULL  
 TITLE: Mice homozygous for an inactivated alpha.  
 1,3 galactosyl transferase gene  
 INVENTOR(S): d'Apice, Anthony J. F., Balwyn, Australia  
 Pearse, Martin J., Mordialloc, Australia  
 Robins, Allan J., Waterloo Corner, Australia  
 Crawford, Robert J., West Lake Shores, Australia  
 Rathjen, Peter D., Blackwood, Australia  
 PATENT ASSIGNEE(S): Bresatch Limited, Adelaide, Australia (non-U.S.  
 corporation)



St. Vincent's Hospital, Victoria, Australia non U.S.  
corporation

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5849991		19981215
APPLICATION INFO.:	US 1995 378617		19950126 5
RELATED APPLN. INFO.:	Continuation in-part of Ser. No. US 1994 188607, filed on 27 Jan 1994, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Croun, Deborah		
LEGAL REPRESENTATIVE:	Fish & Richardson P.C., P.A.		
NUMBER OF CLAIMS:	13		
EXEMPLARY CLAIM:	5		
NUMBER OF DRAWINGS:	47 Drawing Figure s ; 42 Drawing Page s		
LINE COUNT:	4190		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Human pre-formed xenantibodies play an important role in the hyperacute rejection response in human xenotransplantation. Disclosed are materials and methods for removing or neutralizing such antibodies. Also disclosed are materials and methods for reducing or eliminating the epitopes in the donor organs that are recognized by such antibodies. Such epitopes are formed as the result of activity by the enzyme  $\alpha$ -1,3 galactosyltransferase. The porcine gene encoding  $\alpha$ -1,3 galactosyltransferase is disclosed, as are materials and methods for inactivating ("knocking out") the  $\alpha$ -1,3 galactosyltransferase gene in mammalian cells and embryos. Included are nucleic acid constructs useful for inactivating the  $\alpha$ -1,3 galactosyltransferase gene in a target cell. Also disclosed is a novel leukemia inhibitory factor (T-LIF) that is useful for maintenance of embryonic stem cells and primordial germ cells in culture.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 16 OF 37 USPATFULL

ACCESSION NUMBER:	1995:101531 USPATFULL
TITLE:	Recombinant mycobacterial methionyl tRNA synthetase genes and methods of use therefore
INVENTOR(S):	Martinis, Susan A., Newton, MA, United States Sassanfar, Mandana, Dedham, MA, United States Kim, Sunghoon, Seoul, Korea, Republic of Lee, Sang Ho, Boston, MA, United States Schimmel, Paul R., Cambridge, MA, United States
PATENT ASSIGNEE(S):	Cubist Pharmaceuticals, Inc., Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5798240		19930825
APPLICATION INFO.:	US 1996 584326		19960111 (3)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994 305766, filed on 13 Sep 1994, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Harris, Lisa J.		
LEGAL REPRESENTATIVE:	Hamilton, Brook, Smith & Reynolds, P.C.		
NUMBER OF CLAIMS:	62		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT:	2757		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Isolated and/or recombinant nucleic acids encoding mycobacterial methionyl tRNA synthetase have been characterized. Recombinant DNA constructs and vectors having a sequence which encodes mycobacterial methionyl tRNA synthetase have been made, and can be used for the construction of tester strains as well as for the production of isolated and/or recombinant methionyl tRNA synthetases. These enzymes or portions thereof are useful in the biochemical separation of methionine and quantification of methionine or ATP, and for producing antibodies useful in the purification and study of the enzyme, for example. Host cells and methods useful for producing recombinant mycobacterial methionyl tRNA synthetases are described, as are tester strains, which are cells engineered to rely on the function of the tRNA synthetase encoded by an introduced cloned gene. Tester strains can be used to identify inhibitors of the essential tRNA synthetase enzyme encoded by the introduced cloned gene, and thus provide a means to assess the antimicrobial effect and specificity of the inhibitor without employing slow-growing, pathogenic strains of mycobacteria, such as *Mycobacterium tuberculosis*.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L1) ANSWER 17 OF 37 USPATFULL

ACCESSION NUMBER: 1998:75159 USPATFULL  
 TITLE: Cloning and sequencing of allergens of dermatophagoides (house dust mite)  
 INVENTOR(S): Thomas, Wayne R., Nedlands, Australia  
 Chua, Kaw Yan, Nollamara, Australia  
 PATENT ASSIGNEE(S): The Institute of Child Health Research, West Perth, Australia (non-U.S. corporation)  
 Immulogic Pharmaceutical Corporation, Waltham, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5773002		19980630
APPLICATION INFO:	US 1995-461441		19950605 (8)
RELATED APPLN. INFO:	Division of Ser. No. US 1992 945288, filed on 10 Sep 1992, now patented, Pat. No. US 5433948 which is a continuation-in-part of Ser. No. US 1990 580655, filed on 11 Sep 1990, now abandoned which is a continuation-in part of Ser. No. US 1990 458642, filed on 13 Feb 1990, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1991-AU417	19910910
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Scheiner, Laurie	
LEGAL REPRESENTATIVE:	Lahive & Cockfield, LLP	
NUMBER OF CLAIMS:	5	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	31 Drawing Figure(s); 29 Drawing Page(s)	
LINE COUNT	1823	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention features isolated DNA encoding allergens of Dermatophagoides (house dust mites) particularly of the species Dermatophagoides farinae and Dermatophagoides pteronyssinus, which are protein allergens or peptides which include at least one epitope of the protein allergen. In particular, the invention provides DNA encoding the major D. farinae allergens, Der f I and Der f II and DNA encoding the major D. pteronyssinus allergens, Der p I and Der p II. The present invention further relates to proteins and peptides encoded by the isolated D. farinae and D. pteronyssinus DNA, including proteins containing sequence polymorphisms. In addition, the proteins or peptides encoded by the isolated DNA, their use as diagnostic and therapeutic reagents and methods of diagnosing and treating sensitivity to house dust mite allergens, are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L1) ANSWER 18 OF 37 USPATFULL

ACCESSION NUMBER: 1998:72245 USPATFULL  
 TITLE: Cloning and sequencing of allergens of dermatophagoides (house dust mite)  
 INVENTOR(S): Thomas, Wayne R., Nedlands, Australia  
 Chua, Kaw Yan, Nollamara, Australia  
 PATENT ASSIGNEE(S): The Institute of Child Health Research, West Perth, Australia (non U.S. corporation)  
 Immulogic Pharmaceutical Corporation, Waltham, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5770202		19980622
APPLICATION INFO:	US 1995 461309		19950605 (8)
RELATED APPLN. INFO:	Continuation of Ser. No. US 1992 945288, filed on 10 Sep 1992, now patented, Pat. No. US 5433948 which is a continuation in part of Ser. No. US 1990 580655, filed on 11 Sep 1990, now abandoned which is a continuation-in part of Ser. No. US 1990 458642, filed on 13 Feb 1990, now abandoned		

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Scheiner, Laurie
LEGAL REPRESENTATIVE:	Lahive & Cockfield, LLP
NUMBER OF CLAIMS:	2
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	31 Drawing Figure(s); 29 Drawing Page(s)
LINE COUNT	1808

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention features isolated DNA encoding allergens of Dermatophagoides (house dust mites) particularly of the species Dermatophagoides farinae and Dermatophagoides pteronyssinus, which are protein allergens or peptides which include at least one epitope of the protein allergen. In particular, the invention provides DNA encoding the major D. farinae allergens, Der f I and Der f II and DNA encoding the major D. pteronyssinus allergens, Der p I and Der p II. The present invention further relates to proteins and peptides encoded by the isolated D. farinae and D. pteronyssinus DNA, including proteins containing sequence polymorphisms. In addition, the proteins or peptides encoded by the isolated DNA, their use as diagnostic and therapeutic reagents and methods of diagnosing and treating sensitivity to house dust mite allergens, are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 19 OF 37 USPATFULL

ACCESSION NUMBER: 1998:61453 USPATFULL  
 TITLE: Human isoleucyl-tRNA synthetase proteins, nucleic acids and tester strains comprising same  
 INVENTOR(S): Shika, Kiyotaka, Tokyo, Japan  
 Kranz, Janice E., Boston, MA, United States  
 Schimmel, Paul R., Cambridge, MA, United States  
 PATENT ASSIGNEE(S): Cubist Pharmaceuticals, Inc., Cambridge, MA, United States (U.S. corporation)  
 Cancer Institute, Japanese Foundation for Cancer Research, Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5759833		19990602
APPLICATION INFO.:	US 1995-468557		19950606 (8)
RELATED APPLN INFO.:	Continuation-in-part of Ser. No. US 1994-250852, filed on 27 May 1994, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Hobbs, Lisa J.		
LEGAL REPRESENTATIVE:	Hamilton, Brook, Smith & Reynolds, P.C.		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Figure(s); 3 Drawing Page(s)		
LINE COUNT	2982		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Isolated, recombinant nucleic acids which encode an isoleucyl-tRNA synthetase (IleRS) of human origin have been used to make expression constructs and transformed host cells for the production of a recombinant human IleRS. A recombinant enzyme has been purified, and is active in the specific aminoacylation of tRNA by isoleucine. Isolated, recombinant enzyme, and antibodies made specifically thereto, can be useful in assays to diagnose and monitor the autoimmune disease known as "antisynthetase syndrome." The essential isoleucyl-tRNA synthetases of microbes pathogenic in humans can be the targets of inhibitory agents having antimicrobial activity. A human isoleucyl-tRNA synthetase, isolated and purified, can be used to assess the toxic effect in humans of such an inhibitory agent in various biochemical activity assays. This human enzyme can also be expressed in "tester strains" whose cell viability upon the function of the human isoleucyl-tRNA synthetase for tRNA<sup>sup.Ile</sup> charging. Such tester strains can be used to test for any toxic effects of an antimicrobial agent that specifically interacts with a heterologous human IleRS gene or gene product.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 20 OF 37 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1998:187149 CAPLUS  
 DOCUMENT NUMBER: 128:292564  
 TITLE: Pneumococcal bacteriophage Cp-1 encodes its own **protease** essential for phage maturation  
 AUTHOR(S): Martin, Ana D.; Lopez, Rubens; Garcia, Pedro  
 CORPORATE SOURCE: Dep. Microbiologia Molecular, Centro de Investigaciones Biologicas, CSIC, Madrid, 28006, Spain  
 SOURCE: J. Virol. (1998), 72(4), 3491-3494  
 CODEN: JOVIAM; ISSN: 0022-538X  
 PUBLISHER: American Society for Microbiology  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The major capsid protein of the pneumococcal phage Cp-1 that accounts for 90% of the total protein found in the purified virions is synthesized by posttranslational processing of the product of the open reading frame (ORF) orf9. Cloning of different ORFs of the Cp-1 genome in Escherichia coli and Streptococcus pneumoniae combined with Western blot anal. of the

expressed products led to the conclusion that the product of orf13 is an endoprotease that cleaves off the first 48 amino acid residues of the major head protein. This **protease** appears to be key enzyme in the morphogenetic pathway of the Cp1 phage head. To our knowledge, this is the first case of a bacteriophage infecting gram pos. **bacteria** that encodes a **protease** involved in phage maturation.

L10 ANSWER 21 OF 37 BIOSIS COPYRIGHT 2002 BIOSIS

ACCESSION NUMBER: 1998:270045 BIOSIS

DOCUMENT NUMBER: PREV199800270045

TITLE: Functional expression and enzymatic properties of two *Sitophilus zeamais* cysteine proteinases showing different autolytic processing profiles *in vitro*.

AUTHOR(S): Matsumoto, Ichiro (1); Abe, Keiko; Arai, Soichi; Emori, Yasufumi

CORPORATE SOURCE: (1) Dep. Applied Biol. Chem., Graduate Sch. Agric. and Life Sci., Univ., 1-1-1 Yayoi, Bunkyo-ku, Tokyo 113-8657 Japan

SOURCE: Journal of Biochemistry (Tokyo), (April, 1998) Vol. 123, No. 4, pp. 693-700.  
ISSN: 0021-924X.

DOCUMENT TYPE: Article

LANGUAGE: English

AB To characterize in more detail the cathepsin L-like cysteine proteinases from *Sitophilus zeamais* (SCPs) cloned in our previous study (Matsumoto et al. (1997) J. Biochem. 121, 464-476), we established a system for their functional expression and purification using a glutathione S transferase (GST) fusion gene vector from *Escherichia coli*. The proenzyme forms of two representative SCPs, proSCP1 and proSCPg3, were expressed as GST-fusion proteins and purified on a glutathione Sepharose column. GST-proSCP1 undergoes autoproteolytic cleavage into the mature form efficiently at acidic pH, and exhibits significant proteolytic activity toward various substrates including hemoglobin and Z-Phe-Arg-MCA. The enzymatic characteristics of the activated form of SCP1 are similar to those of mammalian cathepsin L, but its pH optimum for the hydrolysis of hemoglobin is significantly lower. The other proSCP, GST-proSCPg3, which has a shorter COOH-terminal domain than SCP1, undergoes almost no autolytic processing and shows only very slight proteolytic activity, although the other enzymatic characteristics of GST-proSCPg3 are similar to those of GST-proSCP1.

L11 ANSWER 22 OF 37 USPATFULL

ACCESSION NUMBER: 97:09151 USPATFULL

TITLE: Solution phase nucleic acid sandwich assays having reduced background noise and kits therefor

INVENTOR(S): Udea, Michael S., Alamo, CA, United States  
Fultz, Timothy, Martinez, CA, United States  
Warner, Brian D., Martinez, CA, United States  
Collins, Mark, Walnut Creek, CA, United States  
PATENT ASSIGNEE(S): Chiron Corporation, Emeryville, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5431697		19971023
APPLICATION INFO:	US 1993 164388		19931203 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Marsone, Ardin H.		
LEGAL REPRESENTATIVE:	Reed, Dianne E., Goldman, Kenneth M., Blackburn, Robert P.		
NUMBER OF CLAIMS:	3		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	16 Drawing Figure(s); 13 Drawing Page(s).		
LINE COUNT:	2153		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB New techniques are provided for substantially reducing background signals encountered in solution phase hybridization assays. The techniques are premised on eliminating or significantly reducing the phenomena of nonspecific hybridization and nonspecific binding, so as to provide a detectable signal which is produced only in the presence of the target polynucleotide of interest. In certain embodiments, methods are provided for increasing the signal which can otherwise be diminished in noise reduction. Kits for carrying out the novel assays are provided as well.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 23 OF 37 USPATFULL

ACCESSION NUMBER: 97:09112 USPATFULL

TITLE: Recombinant mycobacterial seryl tRNA synthetase genes, tester strains and assays

INVENTOR(S): Martinis, Susan A., Newton, MA, United States

PATENT ASSIGNEE(S): Zhang, Jiansu, Cambridge, MA, United States  
Schimmel, Paul R., Cambridge, MA, United States  
Eubist Pharmaceuticals, Inc., Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5456470		19970812
APPLICATION INFO.:	US 1994 305172		19940913 (3)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Hobbs, Lisa J.		
LEGAL REPRESENTATIVE:	Hamilton, Brock, Smith & Reynolds, P.C.		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
LINE COUNT:	2043		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Isolated and/or recombinant nucleic acids encoding mycobacterial seryl tRNA synthetase have been characterized. Recombinant DNA constructs and vectors having a sequence which encodes mycobacterial seryl-tRNA synthetase have been made, and can be used for the construction of tester strains as well as for the production of isolated and/or recombinant seryl-tRNA synthetases. These enzymes or portions thereof are useful in the biochemical separation of serine and quantification of serine or ATP, and for producing antibodies useful in the purification and study of the enzyme, for example. Host cells and methods useful for producing recombinant mycobacterial seryl-tRNA synthetases are described, as are tester strains, which are cells engineered to rely on the function of the tRNA synthetase encoded by an introduced cloned gene. Tester strains can be used to identify inhibitors of the essential tRNA synthetase enzyme encoded by the introduced cloned gene, and thus provide a means to assess the antimicrobial effect and specificity of the inhibitor without employing slow-growing, pathogenic strains of mycobacteria, such as *Mycobacterium tuberculosis*.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 24 OF 37 USPATFULL  
ACCESSION NUMBER: 9747261 USPATFULL  
TITLE: Solution phase nucleic acid sandwich assays having reduced background noise  
INVENTOR(S): Urdea, Michael S., Alamo, CA, United States  
Felts, Timothy, Martinez, CA, United States  
Warner, Brian D., Martinez, CA, United States  
Collins, Mark, Walnut Creek, CA, United States  
PATENT ASSIGNEE(S): Chiron Corporation, Emeryville, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5635352		19970603
APPLICATION INFO.:	US 1995 429181		19950426 (3)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-164388, filed on 8 Dec 1993		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Marschel, Ardin H.		
LEGAL REPRESENTATIVE:	Reed & Rozins, Goldman, Kenneth M., Blackburn, Robert P.		
NUMBER OF CLAIMS:	25		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	16 Drawing Figure(s); 13 Drawing Page(s)		
LINE COUNT:	2338		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB New techniques are provided for substantially reducing background signals encountered in solution phase hybridization assays. The techniques are premised on eliminating or significantly reducing the phenomena of nonspecific hybridization and nonspecific binding, so as to provide a detectable signal which is produced only in the presence of the target polynucleotide of interest. In certain embodiments, methods are provided for increasing the signal which can otherwise be diminished in noise reduction. Kits for carrying out the novel assays are provided as well.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 25 OF 37 USPATFULL  
ACCESSION NUMBER: 9727051 USPATFULL  
TITLE: Assay for antiviral activity using complex of herpesvirus origin of replication and cellular protein

INVENTOR(S): Schaffer, Priscilla A., Holliston, MA, United States  
 Dabrowski Amaral, Christine E., Plymouth, MA, United States

PATENT ASSIGNEE(S): Dana-Farber Cancer Institute, Boston, MA, United States  
 U.S. corporation

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5616461		19970401
APPLICATION INFO.:	US 1992 882838		19920514 (7)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Mosner, Mary E.		
LEGAL REPRESENTATIVE:	Pariton Schwarze Jacobs & Nadel, P.C.		
NUMBER OF CLAIMS:	1		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	17 Drawing Figure(s); 11 Drawing Page(s)		
LINE COUNT:	1290		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention features methods and compositions useful for identifying candidate compounds for antiviral activity, useful for inhibiting replication of a DNA virus, and useful for treating an animal infected with a DNA virus.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 26 OF 37 USPATFULL

ACCESSION NUMBER: 971159 USPATFULL

TITLE DNA sequence encoding surface protein of cryptosporidium parvum

INVENTOR(S): Jenkins, Mark C., Bowie, MD, United States  
 Fayer, Ronald, Ellicott City, MD, United States  
 Tilley, Michael, Manhattan, KS, United States  
 Upton, Steven L., Manhattan, KS, United States

PATENT ASSIGNEE(S): The United States of America as represented by the  
 Secretary of Agriculture, Washington, DC, United States  
 (U.S. government)  
 Kansas State University Research Foundation, Manhattan,  
 KS, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5591434		19970107
APPLICATION INFO.:	US 1994 229393		19940415 (8)
RELATED APPLN. INFO.:	Continuation in part of Ser. No. US 1993 68396, filed on 26 May 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Caputa, Anthony C.		
LEGAL REPRESENTATIVE:	Silverstein, M. Howard, Deck, Randall E., Fado, John D.		
NUMBER OF CLAIMS:	17		
EXEMPLARY CLAIM:	12,14		
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 4 Drawing Page(s)		
LINE COUNT:	900		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Recombinant proteins have been developed for the immunization of animals against cryptosporidiosis. The proteins are effective for the immunization of a variety of animals against *Cryptosporidium parvum*, particularly for the production of hyperimmune colostrum that may be used to confer passive immunity against the parasite. Isolated DNA sequences which encode these proteins have also been developed. The DNA sequences may be inserted into recombinant DNA molecules such as cloning vectors or expression vectors for the transformation of cells and the production of the proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 27 OF 37 BIOSIS COPYRIGHT 2002 BIOSIS

ACCESSION NUMBER: 1997:012699 BIOSIS

DOCUMENT NUMBER: PREV199799619200

TITLE Phylogeny and potential transmission routes of midgut associated endosymbionts of tsetse (Diptera: Glossinidae).

AUTHOR(S): Aksoy, S. (1); Chen, X.; Hypsa, V.

CORPORATE SOURCE: (1) Dep. Epidemiol. Public Health, Yale Univ. Sch. Med., 60 College St., 702 LEPH, New Haven, CT 06510 USA

SOURCE Insect Molecular Biology, 1997 Vol. 6, No. 2, pp. 183-190.  
 ISSN: 0962-1075.

DOCUMENT TYPE: Article

LANGUAGE: English

AB Many tsetse species (Diptera: Glossinidae) harbour two morphologically

different intracellular endosymbiotic microorganisms associated with gut tissue: primary P and secondary S endosymbionts. The P-endosymbionts of tsetse (*Wigglesworthia glossinidia*) are sequestered in specialized epithelial cells, bacteriocytes, which form a structure (bacteriome) in the anterior portion of the gut. Phylogenetic characterization of P-endosymbionts from the three subgenera of genus *Glossina* has shown that these organisms constitute a distinct lineage within the gamma-subdivision of Proteobacteria and have evolved concordantly with their insect host species, suggesting an evolutionarily ancient association for this symbiosis. The S endosymbiont is a smaller 1-2  $\mu$ m gram negative rod and is harboured in midgut epithelial cells. Its phylogenetic characterization from *Glossina morsitans morsitans* had shown that it is a member of the family enterobacteriaceae within the gamma 3 subdivision of the Proteobacteria, closely related to enteric bacteria. Some tsetse species harbour a third bacterium in their reproductive tissue, which was shown phylogenetically to belong to the *Wolbachia pipientis* assemblage of microorganisms. Here, we show that S-endosymbionts from five tsetse species, representing all three subgenera, form a cluster of closely related microorganisms, based on their almost identical 16S rRNA gene sequences. This high similarity provides strong evidence of recent independent acquisition of S-endosymbionts by individual tsetse species, unlike *Wigglesworthia* which displays concordant evolution with host insect species. A PCR based assay and restriction fragment length polymorphism (RFLP) analysis was developed to localize the S-endosymbionts and *Wigglesworthia* in ovary, egg, milk gland and spermatheca tissues in order to investigate the potential routes for the vertical transmission of these symbionts to the intrauterine larvae. Only S-endosymbionts were found to infect milk gland tissue suggesting that milk gland secretions represent a route of transmission for these symbionts into the developing larva. The ovary tissue was found to harbour only *Wolbachia*, confirming its transovarial transmission, whereas the mode of transmission of *Wigglesworthia* remains unknown.

L10 ANSWER 28 OF 37 USPATFULL

ACCESSION NUMBER: 96:99379 USPATFULL  
 TITLE: Maize chlorotic dwarf virus and resistance thereto  
 INVENTOR(S): McMullen, Michael D., Wooster, OH, United States  
 Both, Bradley A., Grimes, IA, United States  
 Townsend, Rod, Des Moines, IA, United States  
 PATENT ASSIGNEE(S): Pioneer Hi-Bred International, Inc., Des Moines, IA,  
 United States (U.S. corporation)  
 The United States of America as represented by the  
 Department of Agriculture, Washington, DC, United  
 States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5559828		19961029
APPLICATION INFO:	US 1993 38763		19930324 (3)
DOCUMENT TYPE	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Fox, David T.		
ASSISTANT EXAMINER:	Veitenheimer, Eric E.		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1,2,11		
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT	1051		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and materials are provided to isolate the coat protein genes from maize chlorotic dwarf virus. One or more of these genes (MCDV-CP.sub.1, MCDV-CP.sub.2 or MCDV-CP.sub.3) is then incorporated in an expression cassette designed for suitable expression in a plant cell system. The resulting transformation vector is then introduced into maize to provide cross protection to MCDV or related viral infections.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 29 OF 37 USPATFULL

ACCESSION NUMBER: 96:91956 USPATFULL  
 TITLE: Transcription factor-DNA binding assay  
 INVENTOR(S): Peterson, Michael G., So. San Francisco, CA, United States  
 Balchwal, Vijay R., So. San Francisco, CA, United States  
 Strulovici, Berta, So. San Francisco, CA, United States  
 PATENT ASSIGNEE(S): Tularik, Inc., South San Francisco, CA, United States  
 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5563036		19961008
APPLICATION INFO:	US 1994-235503		19940429 (8)

DOCUMENT TYPE: Utility  
 FILE SEGMENT: Granted  
 PRIMARY EXAMINER: Elliott, George C.  
 ASSISTANT EXAMINER: McKelvey, Terry A.  
 LEGAL REPRESENTATIVE: Flehr, Hohbach, Test, Albritton & Herbert  
 NUMBER OF CLAIMS: 14  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)  
 LINE COUNT: 1192

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Pharmacological agents useful in the diagnosis or treatment of disease associated with the expression of a gene are identified in high throughput drug screening assays. The methods involve combining a labeled transcription factor, a nucleic acid coupled to a ligand, a candidate pharmacological agent and a receptor immobilized on a solid substrate, such as a microtiter plate, filter, or bead. The nucleic acid has at least that portion of a nucleotide sequence naturally involved in the regulation of the transcription of the gene which is necessary for sequence-specific interaction with the transcription factor. The resultant combination is incubated under conditions whereby the receptor is bound to the ligand and, but for the presence of said candidate pharmacological agent, the transcription factor is sequence-specifically bound to the nucleic acid. Unbound transcription factor is then removed or washed from the solid substrate and labelled, sequence-specifically bound transcription factor is detected. Incubates which include candidate agents which alter transcription factor binding deviate from control incubates in terms of label signal--typically, binding is disrupted and the signal is diminished. In a preferred embodiment, the entire process is performed by a computer-controllable electromechanical robot with an axial rotatable arm.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 30 OF 37 USPATFULL

ACCESSION NUMBER: 96:80013 USPATFULL  
 TITLE: Cloning and sequencing of allergens of dermatophagoides (house dust mite)  
 INVENTOR(S): Thomas, Wayne R., Nedlands, Australia  
 Chua, Kaw-Yan, Nollamara, Australia  
 PATENT ASSIGNEE(S): Immunologic Pharmaceutical Corporation, Waltham, MA,  
 United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5552142		19960903
APPLICATION INFO.:	US 1995 462831		19950605 (8)
RELATED APPLN INFO.:	Division of Ser. No. US 1992 945288, filed on 10 Sep 1992, now patented, Pat. No. US 5433948 which is a continuation-in part of Ser. No. US 1990 580655, filed on 11 Sep 1990, now abandoned which is a continuation-in part of Ser. No. US 1990 458642, filed on 13 Feb 1990, now abandoned		

DOCUMENT TYPE: Utility  
 FILE SEGMENT: Granted  
 PRIMARY EXAMINER: Nucker, Christine M.  
 ASSISTANT EXAMINER: Schoener, Laurie  
 LEGAL REPRESENTATIVE: Labovitz & Cockfield  
 NUMBER OF CLAIMS: 6  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 11 Drawing Figure(s); 29 Drawing Page(s)  
 LINE COUNT: 1728

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention features isolated DNA encoding allergens of Dermatophagoides (house dust mites) particularly of the species Dermatophagoides farinae and Dermatophagoides pteronyssinus, which are protein allergens or peptides which include at least one epitope of the protein allergen. In particular, the invention provides DNA encoding the major D. farinae allergens, Der f I and Der f II and DNA encoding the major D. pteronyssinus allergens, Der p I and Der p II. The present invention further relates to proteins and peptides encoded by the isolated D. farinae and D. pteronyssinus DNA, including proteins containing sequence polymorphisms. In addition, the proteins or peptides encoded by the isolated DNA, their use a diagnostic and therapeutic reagents and methods of diagnosing and treating sensitivity to house dust mite allergens, are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 31 OF 37 USPATFULL

ACCESSION NUMBER: 96:75816 USPATFULL  
 TITLE: Heterologous signal sequences for secretion of insect controlling proteins



INVENTOR(S): Black, Bruce C., Yardley, PA, United States  
 Summers, Max D., Bryan, TX, United States(4)  
 PATENT ASSIGNEE(S): American Cyanamid Company, Wayne, NJ, United States  
 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5547871		19960820
APPLICATION INFO:	US 1993-9265		19930125 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Hendricks, Keith D.		
LEGAL REPRESENTATIVE:	Webster, Darryl L., Gordon, Alan M.		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	16 Drawing Figure(s); 16 Drawing Page(s)		
LINE COUNT	2047		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Seven heterologous signal sequence are described for use with genes for insect controlling proteins, such that when the signal sequence and protein genes are inserted into an insect virus, that virus demonstrates an earlier onset of morbidity than a wild-type insect virus which lacks the gene for the insect controlling protein

CAS INDEXING IS AVAILABLE FOR THIS PATENT

L10 ANSWER 32 OF 37 USPATFULL  
 ACCESSION NUMBER 95:110151 USPATFULL  
 TITLE Industrial alkaline protease from shipworm bacterium  
 INVENTOR(S) Griffin, Harold L., Peoria, IL, United States  
 Greene, Richard V., Peoria, IL, United States  
 Cotta, Michael A., Peoria, IL, United States  
 PATENT ASSIGNEE(S): The United States of America as represented by the  
 Secretary of Agriculture, Washington, DC, United States  
 U S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5474700		19951212
APPLICATION INFO:	US 1994-182918		19940114 (8)
RELATED APPLN INFO:	Division of Ser. No. US 1992-880912, filed on 12 May 1992, now patented, Pat. No. US 5312749		
DOCUMENT TYPE	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER	Lieberman, Paul		
ASSISTANT EXAMINER	Fries, K.		
LEGAL REPRESENTATIVE:	Silverstein, M. Howard, Ribando, Curtis P., Fado, John D.		
NUMBER OF CLAIMS	8		
EXEMPLARY CLAIM	1		
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 2 Drawing Page(s)		
LINE COUNT	699		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A protease has been isolated from a symbiotic bacterium found in the gland of Deshayes of the marine shipworm. The protease remains active over the pH range of about 4-12, exhibits salt tolerance up to 3M sodium chloride, retains a high level of activity above 50.degree. C. for at least 60 min, and is stimulated by oxidizing agents, particularly perborate. The properties of this protease suggest widespread utility in detergents and other low-temperature industrial applications.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 33 OF 37 USPATFULL  
 ACCESSION NUMBER: 95:64719 USPATFULL  
 TITLE: Cloning and sequencing of allergens of dermatophagoides (house dust mite)  
 INVENTOR(S): Thomas, Wayne R., 31 Taylor Road, Nedlands, Australia 6009  
 Thua, Kaw-Yan, 35 Munja Way, Nollamara, Australia 6061

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5433948		19950718
APPLICATION INFO:	US 1992-945288		19920910 (7)
RELATED APPLN. INFO:	Continuation in-part of Ser. No. US 1990-580655, filed on 11 Sep 1990, now abandoned which is a continuation-in-part of Ser. No. US 1990-458642, filed on 13 Feb 1990, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		

PRIMARY EXAMINER: Nucker, Christine M  
 ASSISTANT EXAMINER: Scheiner, Lantlie  
 NUMBER OF CLAIMS: 2  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 31 Drawing Figure(s); 29 Drawing Page(s)  
 LINE COUNT: 1731

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention features isolated DNA encoding allergens of Dermatophagoides (house dust mites) particularly of the species Dermatophagoides farinae and Dermatophagoides pteronyssinus, which are protein allergens or peptides which include at least one epitope of the protein allergen. In particular, the invention provides DNA encoding the major D. farinae allergens, Der f I and Der f II and DNA encoding the major D. pteronyssinus allergens, Der p I and Der p II. The present invention further relates to proteins and peptides encoded by the isolated D. farinae and D. pteronyssinus DNA, including proteins containing sequence polymorphisms. In addition, the proteins or peptides encoded by the isolated DNA, their use as diagnostic and therapeutic reagents and methods of diagnosing and treating sensitivity to house dust mite allergens, are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 34 OF 37 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1995:712732 CAPLUS  
 DOCUMENT NUMBER: 133:136923  
 TITLE: Characterization, subcellular localization, and developmental regulation of a cysteine proteinase from Dictyostelium discoideum  
 AUTHOR(S): Mehta, Darshini P.; Etchison, James R.; Freeze, Hudson H.  
 CORPORATE SOURCE: La Jolla Cancer Res. Foundation, La Jolla, CA, 92037, USA  
 SOURCE: Arch. Biochem. Biophys. (1995), 321(1), 191-8  
 CODEN: ABBIA4; ISSN: 0003-9861  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Previous studies showed that vegetative cells of Dictyostelium discoideum make a cysteine proteinase called proteinase-1, which contains multiple residues of GlcNAc-1-P linked directly to peptidyl serines. As a prelude to understanding the function of this novel carbohydrate modification, the authors purified and extensively characterized this proteinase in terms of its enzymic activity, subcellular localization, and developmental regulation. The purified enzyme has an apparent mol. wt. of 38 kDa in heat-denatured, reducing SDS-PAGE and 55 kDa under nonreducing conditions. Native gel electrophoresis and isoelectric focusing revealed two protein bands with equal activity and having pI values of 2.5 and 2.6. Even more complex patterns are found in non-heat-denatured SDS/PAGE gels. However, partial amino acid sequencing of the purified protein gave predominantly a single sequence. The enzyme is inhibited by trans-epoxysuccinyl-L-leucylamide-(4-guanidino) butane, Na-p-tosyl-L-lysine chloromethyl ketone, N-tosyl-L-phenylalanine chloromethyl ketone, and leupeptin, has a pH optimum of 5.0, and cofractionates with lysosomal enzymes in bacterially grown cells. It appears to comprise about 90% of the total cysteine proteinase activity in cells at a time when the cells have just finished clearing the bacterial lawn. Prior to this point and after the onset of development, its level is 2- to 20-fold lower. This remarkably fine regulation parallels the developmental regulation of other cysteine proteinases in Dictyostelium. Based on these results it appears that proteinase-1 may be primarily used for specialized proteolysis just before the onset of development rather than for simply digesting the bacteria for food.

L10 ANSWER 35 OF 37 BIOSIS COPYRIGHT 2002 BIOSIS

ACCESSION NUMBER: 1995:23445 BIOSIS  
 DOCUMENT NUMBER: PREV199598034745  
 TITLE: Differential gene expression in an actinorhizal symbiosis: Evidence for a nodule specific cysteine **proteinase**  
 AUTHOR(S): Goetting-Minesky, M. P.; Mullin, B. E.  
 CORPORATE SOURCE: Graduate Program Plant Physiol. Genetics, Dep. Bot., Center Legume Res., Univ. Tennessee, Knoxville, TN 37996-1100 USA  
 SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1994) Vol. 91, No. 21, pp. 9891-9895.  
 ISSN: 1027-8424.  
 DOCUMENT TYPE: Article  
 LANGUAGE: English

AB Nodules formed on the roots of actinorhizal plants as a consequence of nitrogen-fixing symbioses with the actinomycete Frankia appear to result from modification of the developmental pathway that leads to lateral root formation. Presently no information exists about factors that control this

developmental switch or, until now, about genes that are differentially expressed as a result of an altered developmental pathway. Differential screening of an *Alnus glutinosa* nodule cDNA library revealed altered levels of gene expression in nodules as compared with roots and allowed isolation of host plant nodule-specific cDNA sequences. The deduced amino acid sequence of one full-length cDNA, AgNOD-CP1, represents a nodule-specific cysteine **proteinase** similar to cysteine proteinases of the papain superfamily. Residues critical to catalysis, active site, and disulfide bridges are conserved. Suggested roles for this enzyme are as a defense response to *Frankia* invasion, as a component of tissue remodeling in root and nodule tissues, as a cell cycle component, or as an element of protein turnover. Complexity of hybridization patterns revealed by Southern blot analysis suggests that the gene for AgNOD-CP1 is a member of a multigene family. Northern hybridization results indicate that this gene may have been recruited for a role specific to this symbiosis, a phenomenon observed in the *Rhizobium*-legume symbioses, perhaps common to many microbe-plant interactions.

L10 ANSWER 36 OF 37 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1986:164925 CAPLUS  
DOCUMENT NUMBER: 104:164925  
TITLE: Formation of a covalent complex between the terminal protein of pneumococcal bacteriophage Cp-1 and 5'-dAMP  
AUTHOR(S): Garcia, Pedro; Hermoso, Jose M.; Garcia, Juan A.; Garcia, Ernesto; Lopez, Rubens; Salas, Margarita  
CORPORATE SOURCE: Inst. Immunol. Biol. Microbiol., Madrid, 28006, Spain  
SOURCE: J. Virol. (1986), 58(1), 31-5  
CODEN: JOVIAM; ISSN: 0022-538X  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Incubation of exts. of Cp-1-infected *Streptococcus pneumoniae* with [ $\alpha$ -<sup>32</sup>P]dATP produced a labeled protein with the electrophoretic mobility of the Cp-1 terminal protein. The reaction product was resistant to treatment with micrococcal nuclease and sensitive to treatment with **proteinase K**. Incubation of the <sup>32</sup>P-labeled protein with 5M piperidine for 4 h at 50 degree. released 5'-dAMP, indicating that a covalent complex between the terminal protein and 5'-dAMP was formed in vitro. When the 4 deoxynucleoside triphosphates were included in the reaction mixt., a labeled complex of slower electrophoretic mobility in SDS-polyacrylamide gels than the terminal protein-dAMP complex was also found, indicating that the Cp-1 terminal protein-dAMP complex can be elongated and, therefore, that it is an initiation complex. Treatment of the <sup>32</sup>P-labeled terminal protein-dAMP complex with 5.8M HCl at 110.degree. for 2 h yielded phosphothreonine. These results, together with the resistance of the terminal protein DNA linkage to hydroxylamine, suggest that the Cp-1 terminal protein is covalently linked to the DNA through a phosphoester bond between L-threonine and 5'-dAMP, namely, a O-5'-deoxyadenylyl-L-threonine bond.

L10 ANSWER 37 OF 37 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1984:3346 CAPLUS  
DOCUMENT NUMBER: 100:3346  
TITLE: **Protease**-sensitive transfection of *Streptococcus pneumoniae* with bacteriophage Cp-1 DNA  
AUTHOR(S): Ronda, Concepcion; Lopez, Rubens; Gomez, Antonio; Garcia, Ernesto  
CORPORATE SOURCE: Inst. Immunol. Biol. Microbiana, Consejo Super. Invest. Cient. Velazquez, Madrid, Spain  
SOURCE: J. Virol. (1983), 48(3), 721-30  
CODEN: JOVIAM; ISSN: 0022-538X  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The transfecting activity of pneumococcal phage Cp-1 DNA was destroyed by treatment with proteolytic enzymes, although these enzymes did not affect transfection with bacteriophage Dp-4 DNA. This transfection was stimulated by Ca<sup>2+</sup>. **Protease**-treated Cp-1 DNA competes for binding and uptake with transforming pneumococcal DNA as well as with transfecting Dp-4 DNA to approx. the same extent as does untreated Cp-1 DNA. In addn., [<sup>3</sup>H]thymidine-labeled Cp-1 DNA, treated with proteases or untreated, was absorbed with the same efficiency. Apparently, the uptake of Cp-1 DNA is not affected by **protease** treatment. [<sup>3</sup>H]thymidine-labeled Cp-1 DNA showed remarkable resistance against surface nuclease activity of competent wild-type cells. The monomeric form of the Cp-1 DNA-protein complex showed a linear dose response in transfection.